

IN THE CLAIMS

Claims 1–20 (canceled)

21. (original) A method for image processing of a digital image comprising the steps of:
providing one or more than one image processing filter;
setting the coordinates of one or more than one image reference point within the digital image;
providing a mixing function algorithm embodied on a computer-readable medium for modifying the digital image; and
processing the digital image by applying the mixing function algorithm based on the one or more than one image processing filter and the coordinates of the one or more than one set image reference point.
22. (original) The method of claim 21, wherein the one or more than one image processing filter is a noise reduction filter.
23. (original) The method of claim 21, wherein the one or more than one image processing filter is a sharpening filter.
24. (original) The method of claim 21, wherein the one or more than one image processing filter is a color change filter.

Claims 25–31 (canceled)

32. (new) A method for image processing of a digital image comprising the steps of:
determining one or more sets of pixel characteristics;
determining for each pixel characteristic set, an image processing filter;
providing a mixing function algorithm embodied on a computer-readable medium for modifying the digital image; and
processing the digital image by applying the mixing function algorithm based on

the one or more pixel characteristic sets and determined image processing filter.

33. (new) The method of claim 32, wherein the mixing function algorithm comprises a difference function.

34. (new) The method of claim 33, wherein the difference function algorithm calculates a value based on the difference of between pixel characteristics and one of the one or more determined pixel characteristic sets.

35. (new) The method of claim 32, further comprising the step of determining for each pixel characteristic set, a set of weighting values, and the processing step further comprises applying the mixing function algorithm based on the determined weighting value set.

36. (new) The method of claim 32, wherein the mixing function algorithm includes a controlling function for normalizing the calculations.

37. (new) The method of claim 32, wherein a first pixel characteristic set is determined, and at least one characteristic in the first pixel characteristic set is location dependent, and at least one characteristic in the first pixel characteristic set is either color dependent, or structure dependent, or both.

38. (new) The method of claim 32, wherein a first pixel characteristic set is determined, and at least two different characteristics in the first pixel characteristic set are from the group consisting of location dependent, color dependent, and structure dependent.

39. (new) A method for processing of a digital image comprising the steps of:

- receiving the coordinates of one or more than one image reference point within the digital image;
- receiving an assignment of one or more than one image processing filter, the filter being associated with the coordinates of the one or more than one defined image reference point;
- providing a mixing function algorithm embodied on a computer-readable medium for modifying the digital image; and
- processing the digital image by applying the mixing function algorithm based on

the one or more than one assigned image processing filter and the coordinates of the one or more than one defined image reference point.

40. (new) The method of claim 39, further comprising displaying a graphical icon at the coordinates of a defined image reference point.

41. (new) The method of claim 39, the digital image comprising pixels, wherein the mixing function algorithm calculates a geometric distance between each pixel of the digital image to the coordinates of the one or more than one defined image reference point.

42. (new) The method of claim 41, the mixing function algorithm operating as a function of the calculated geometric distance from each pixel of the digital image to the coordinates of the one or more than one defined image reference point.

43. (new) The method of claim 39, the digital image comprising pixels having image characteristics, further comprising receiving one or more assigned image characteristics associated with the coordinates of one or more defined image reference point, and wherein the mixing function algorithm calculates a characteristic difference between the image characteristics of a pixel of the digital image and the one or more assigned image characteristics.

44. (new) The method of claim 39, further comprising receiving one or more weighting values, and the processing step further comprising applying the mixing function algorithm based on weighting values.

45. (new) The method of claim 39, further comprising receiving one or more regions of interest associated with the coordinates of one or more defined image reference point.

46. (new) The method of claim 39, the digital image comprising pixels having image characteristics, wherein the mixing function algorithm calculates a characteristic difference between the image characteristics of a pixel and the image characteristics of one or more pixels neighboring the coordinates of one or more defined image reference point.

47. (new) The method of claim 39, further comprising the step of providing an

application program interface comprising a first interface to receive the coordinates of the one or more defined image reference points, and a second interface to receive the assignment of the one or more image processing filters.

48. (new) The method of claim 39, wherein the mixing function algorithm is selected from a group consisting of a Pythagoras distance approach, a color curves approach, a segmentation approach, a classification approach, an expanding areas approach, and an offset vector approach.

49. (new) The method of claim 48, wherein the segmentation approach comprises multiple segmentation.

50. (new) The method of claim 48, the digital image comprising pixels having attributes, wherein the classification approach adjusts for similarity of pixel attributes.

51. (new) A method for processing of a digital image, the digital image comprising pixels having image characteristics comprising the steps:

- defining the location of image reference points within the digital image;
- determining image processing filters; and
- processing the digital image by applying the determined image processing filters based upon either the location of the defined image reference points, or the image characteristics of the pixels at the location of the defined image reference points, or both.

52. (new) An application program interface embodied on a computer-readable medium for execution on a computer for image processing of a digital image, the digital image comprising pixels having image characteristics, comprising:

- a first interface to receive the coordinates of an image reference point defined by a user within the digital image, and
- a second interface to receive an assignment of an image processing filter by the user, the filter being associated with both the coordinates of the defined image reference point, and the image characteristics of one or more pixels neighboring the coordinates of the defined image reference point.

53. (new) The program interface of claim 52, further comprising a third interface that displays a graphical icon at the coordinate of the defined image reference point.
54. (new) The program interface of claim 53, wherein the third interface permits repositioning of the graphical icon.
55. (new) The program interface of claim 52, further comprising a fourth interface that identifies the assigned image processing filter.
56. (new) The program interface of claim 52, wherein the second interface is further to receive one or more than one parameter representing a weighting value.
57. (new) An application program interface embodied on a computer-readable medium for execution on a computer for image processing of a digital image, the digital image comprising pixels having image characteristics, comprising:
- a first interface to receive the coordinates of each of a plurality of image reference points defined by a user within the digital image, and
 - a second interface to receive an assignment of an image processing filter by the user, the filter being associated with either the coordinates of each of the plurality of defined image reference points, or the image characteristics of one or more pixels neighboring the coordinates of each of the plurality of defined image reference points.
58. (new) The program interface of claim 57 wherein the assigned image processing filter is associated with both the coordinates of each of the plurality of defined image reference points and the image characteristics of one or more pixels neighboring the coordinates of each of the plurality of defined image reference points.
59. (new) The program interface of claim 57, further comprising a third interface that displays a graphical icon at the coordinates of one or more than one of the plurality of defined image reference points.
60. (new) The program interface of claim 59, wherein the third interface permits repositioning of the graphical icon.
61. (new) The program interface of claim 57, further comprising a fourth interface that

identifies the assigned image processing filter.

62. (new) The program interface of claim 57, wherein the second interface is further to receive one or more than one parameter representing a weighting value.

63. (new) A computer readable medium having contents for causing a computer-based information handling system to perform the steps of:

providing one or more than one image processing filter;

receiving the coordinates of one or more than one point within the digital image and

setting the coordinates of one or more than one image reference point based upon the received coordinates;

providing a mixing function algorithm for modifying the digital image; and

processing the digital image by applying the mixing function algorithm based on the one or more than one image processing filter and the coordinates of the one or more than one set image reference point.

64. (new) The computer readable medium of claim 63, wherein the one or more than one image processing filter is a noise reduction filter, a sharpening filter, or a color change filter.

65. (new) A system for processing digital images, comprising the computer readable medium of claim 63 and a computer-based information handling system.

66. (new) The system of claim 65, wherein the computer-based information handling system comprises a digital camera.